

one patient on whom I operated in 1874, it was hardly possible to persuade those who saw the stump, that it was not a portion of astragalus which had been left, with the integrity of the ankle-joint preserved. As all the cases in which I have practised this modification have survived and been successful, I have not found any objection to it, nor had the opportunity of making any *post mortem* examination.

One case had to be taken down about the fifth day for secondary hæmorrhage from the posterior tibial, yet I did not find that the presence of the periosteum implicated in any way the subsequent secondary union of granulations which healed the wound.

## ON THE TREATMENT OF BROKEN-NOSE BY FORCIBLE STRAIGHTENING AND MECHANICAL RETENTIVE APPARATUS.\*

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THE treatment of broken nose is a subject which does not appear to have sufficiently attracted the notice of the profession, although the importance of the accident to the patient in producing a permanent and conspicuous deformity, as well as in many cases interfering with the voice and breathing, is very great.

It has been too generally supposed that no permanent benefit can be derived from treatment; and in the cases which I propose to describe, nothing whatever had been done, although high surgical authorities had been consulted. It occurred to me, however, that, by the operation of forcibly straightening the nose under chloroform, and afterwards employing some retentive apparatus, varying according to the nature of the case, much good might be done, and in some instances the deformity entirely removed.

All cases of so-called broken nose may be divided into 'two classes: viz., 1. Those in which the injury is limited to the anterior or cartilaginous portion of the nose, and consists essentially of depression, with

lateral bending of the cartilaginous septum; a partial displacement of this septum from its attachment to the vomer also occurring in many cases. 2. Those in which the nasal bones are fractured, in addition to depression and displacement of the cartilaginous septum from the vomer. Several examples of both these forms of injury have fallen under my observation in private practice, but all the cases, with one exception, in which I have been consulted, have been at periods varying from one to six months after the accident. In one case, however, that of a young lady eleven years of age, the accident occurred six years previously in a fall down a sloping bank, forty feet in height.

In all these cases, the principle of treatment which I have adopted has been, whilst the patient is under chloroform, to straighten the bent cartilaginous septum, and bring it into a direct line with the vomer, using for this purpose a pair of strong forceps, with flat parallel blades, represented in Fig. 1; and, when the nasal bones are depressed, to raise these also, by carrying the blades of the forceps directly upwards. In some cases the two blades, when closed, may be forced up each nostril, under the lower portion of the nasal bones, and lateral pressure may be made externally by the thumb, at the same time that the bones are raised from within. This was done in the second case reported—that of C. R., in which sufficient force was employed to refracture the left nasal bone.

After this operation of forcibly straightening the nose, I employ a retentive apparatus, consisting of the steel-screw compressor, represented in Fig. 2, which is applied so as to support the septum, one blade

(a) being introduced into each nostril, and the screw (b) tightened just sufficiently to hold it in position, and bring the blades into contact with the septum, but without making any pressure upon it. This apparatus can be worn for two or three days and nights without removal. After this, I introduce the ivory plugs represented in Fig. 3, which the pa-

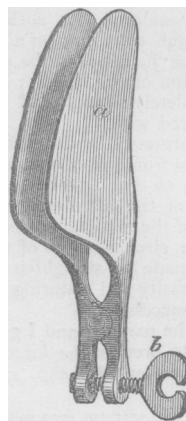


Fig. 2.—Steel Screw Compressor.

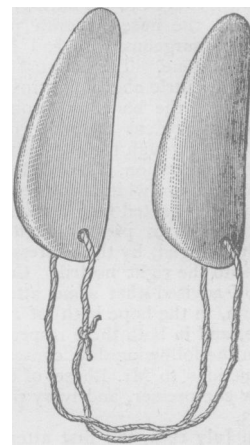


Fig. 3.—Ivory Plugs.

tients can remove at pleasure, and reintroduce, so that both nostrils are kept moderately distended, and support given to the cartilaginous septum.

It would not be possible to support the nasal bone by any plug introduced in the upper part of the nasal cavity, from its small size, and the sensitive character of the lining membrane. When the nasal bones have been fractured, I have employed a retentive apparatus externally,

by means of a pad adjusted by cog-wheels, and attached to the front part of a steel band passing round the head, forming a kind of nose-truss, if it may be so termed. This apparatus is represented in Fig. 4, and was first used in the case of C. R., and found to answer extremely well. This truss can be worn day and night for two or three weeks, according to the extent of the injury, and in the case above referred to was worn for a still longer period.

The operation of forcibly straightening the nose does not require to be repeated, except in cases of great severity; but it may in some instances have to be repeated once or twice before the deformity can be rectified, the retentive apparatus being afterwards employed. When the nose has been straightened, I have not found that there has been any disposition

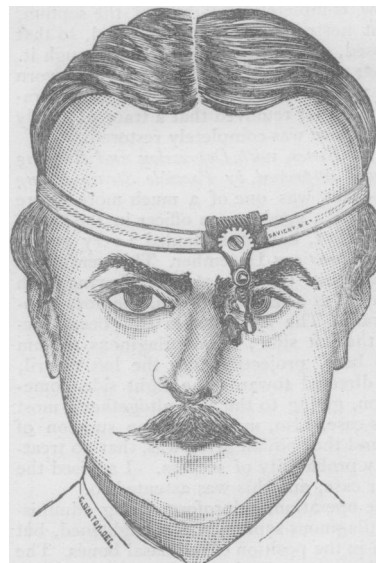


Fig. 4.—Nose-Truss, with Screw-Pads.

to relapse of the deformity: the nasal bones and the cartilaginous septum retain their improved position and relations the more readily, as they are not subjected to any muscular influences tending to cause displacement.

Although I have not had the opportunity of applying the treatment above described at an earlier date than a month from the accident, there can be no doubt that its employment would be more easy and effectual in proportion to the early period at which it was adopted after the accident; but, should there be much swelling and ecchymosis, it would be advisable to wait until these had subsided, and in a week or ten days the treatment by forcible straightening and retentive apparatus could be employed with every probability of success. In recent cases, however, it may not always be necessary to employ any retentive apparatus.

\* Read before the Medical Society of London.

The first case which came under my observation, and was submitted to treatment by forcible straightening, was one belonging to the series described in the first class.

CASE I. *Depressed and Bent Cartilaginous Septum of the Nose rectified by Forcible Straightening one Month after the Accident.*—L. L., aged 16, was brought to me on the 12th of July, 1861. He had received a blow on the nose a month previously from a cricket-ball at Eton, and two surgeons who had been consulted considered that nothing could be done. The external deformity was slight, consisting of a depression a little above the tip of the nose, at the junction of the cartilage with the bone, with some lateral inclination of the former; but since the accident the voice had become completely altered, and the breathing through the right nostril much interfered with.

On examination, I found the right nostril obstructed by the cartilaginous septum, which had been bent by the blow from the cricket-ball, and now projected into the cavity of the nostril, so that a probe could not be made to pass through it. The cavity of the left nostril was much enlarged, by the depression and bending of the cartilaginous septum into the right nostril. Considering all the circumstances of this case, I advised that some attempt should be made to straighten the septum, in the hope both of rectifying the deformity and restoring the voice, and in both these respects the result was successful.

On the following day, consent was given by the parents, and I gave instructions to Mr. Blaise of St. James' Street to prepare the forceps, screw-compressor, and ivory plugs, which are represented in figs. 1, 2, and 3.

On July 16th, the first attempt to straighten the septum was made, with only partial success, in consequence of the patient not being allowed by his father to take chloroform, and the pain and sneezing rendering it impossible to proceed. The steel screw-compressor was, however, worn for three days and nights, and afterwards the ivory plugs were used with as little intermission as possible. This did not cause much pain or inconvenience, and the improvement was very decided, although incomplete. Consent to the administration of chloroform was now obtained; and on July 30th I repeated the operation, the chloroform being administered by my friend Dr. Allan, the medical attendant of the family. I now completely straightened the septum, and the obstruction of the right nostril was at once removed, so that the forceps, with the blades closed, could readily be passed through it. The retentive apparatus was used as before, the ivory plugs being worn at night for several weeks. It was not necessary to repeat the operation; the external deformity was so far removed that a trace of it only could be said to remain, and the voice was completely restored.

CASE II. *Fracture of the Nasal Bones, with Depression and Bending of the Cartilaginous Septum, much improved by Forcible Straightening Six Months after the Accident.*—This was one of a much more severe character than the preceding. C. R., aged 22, an officer in the army, first consulted me on June 6th, 1871, having sustained a very severe injury to the nose by a fall in the previous December. This gentleman was wearing one of the new-fashioned Ulster coats, and, having both hands in the pockets, fell down flat at a railway station, the nose coming into contact with an iron rail. The nasal bones had been fractured, and projected towards the left side; the cartilaginous septum was also much depressed and bent, projecting into the left nostril, whilst the tip of the nose was directed towards the right side, somewhat in the shape of a half-moon, giving to the face altogether a most unsightly appearance. In this case, also, more than one surgeon of eminence had been consulted, and the opinion given was, that no treatment could be adopted with any probability of success. I advised the same treatment as in the former case, and this was assented to.

On June 9th, I performed the operation, chloroform being administered by Mr. Braine. The cartilaginous septum was straightened, but very little improvement effected in the position of the nasal bones. The steel screw-compressor was used continuously for three days and nights, followed by the use of the ivory plugs. The improvement, so far as the front part of the nose and cartilaginous septum were concerned, was satisfactory; but the nasal bones being still depressed and displaced towards the left side, I directed Mr. Blaise to construct a kind of steel truss (represented in Fig. 4) to pass round the head, having a small oval pad connected with the front part, and capable of accurate adjustment, by means of two cog-wheels, so as to be applied to the left nasal bone, as a retentive apparatus, after the bone had been forcibly bent or rebroken.

On June 21st, chloroform was again given by Mr. Braine; I then rebroke the nose. In this operation, considerable force was employed in the attempt to bring the nasal bones into their natural position by a firm and long-continued pressure on the left nasal bone. Very considerable improvement was effected, and the steel truss and pad were immediately applied as a retentive apparatus. I also more completely

straightened the cartilaginous septum; and the steel screw-compressor, followed by the ivory plugs, was used to support the septum, at the same time that the truss was applied to support the nasal bones externally.

After this operation, the progress was satisfactory, and the improvement very marked and well maintained; still, however, from the severity of the case and its duration, neither the depression, nor the lateral deviation of the nasal bones, was entirely removed.

On July 5th, 1871, I repeated the operation, chloroform being given by Mr. Braine. Still further improvement was gained, with very little force, and the retentive apparatus used as before for several weeks.

On November 27th, I saw him for the last time. I found the improvement had been well maintained, and the appearance of the nose so much improved that it would scarcely attract attention, and the result was considered to be very satisfactory.

CASE III. *Both Nasal Bones evenly Depressed between the Nasal Processes of the Superior Maxillary Bones, producing Flattening of the Upper Part of the Nose: Cartilaginous Septum also Depressed and Bent, projecting into the Right Nostril: the Tip of the Nose deviating towards the Left Side.*—Miss F., aged 11, was sent to me by my friend Mr. Walter Coulson, on the 9th June, 1874, and the nose then presented the general appearance indicated in the above description. The accident occurred six years previously, when she was only five years of age, by her falling down a sloping bank forty feet in height, the nose coming into contact, probably with a stone, when she first rolled off the embankment. In addition to the external deformity, the breathing was very much interfered with in this case; the voice was also much altered, and an offensive discharge constantly occurred from the nostrils, as in ordinary ozæna. No evidence of necrosis of bone could be obtained by examination with the probe, nor was this indicated by any tenderness to pressure externally. I therefore advised the operation of straightening as in the preceding cases.

On June 10th, 1874, chloroform being administered by Mr. Braine, I straightened the cartilaginous septum with the steel forceps, and to some extent succeeded in improving the position of the nasal bones. The steel screw-compressor and ivory plugs were worn without inconvenience.

On July 2nd, I endeavoured still further to raise the depressed nasal bones, with the assistance of Dr. Sliman of Hackney, who administered chloroform. The blades of the forceps were carried directly upwards in a direction to elevate the nasal bones, and a firm lateral pressure applied externally at the same time. A marked improvement in the shape of the nose was thus produced, and the same retentive apparatus employed, but it was difficult to maintain sufficient lateral pressure externally. The general improvement in the form and shape of the nose was considerable, and much of the depression removed. The offensive discharge from the nostrils entirely ceased, and both the breathing and voice were much improved.

Several other cases have fallen under my observation, in which the injury has been limited to depression and lateral bending of the cartilaginous septum, with partial displacement from the vomer, as in the first case, and in every instance the treatment has been perfectly successful.

## A CASE OF PERFORATING ULCER OF THE DUODENUM, WITHOUT DIAGNOSTIC SYMPTOMS.

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ULCERS of the duodenum are by no means rare, but in nearly all such cases symptoms occur which are diagnostic. In the one, however, which I am about to relate, no such symptoms were present, and perforation occurred most suddenly without a single warning.

X., aged 61, came to see me on Monday morning, June 21st, complaining of pain in the epigastrium. "He had always had good health, never knowing a day's illness." I prescribed some opium pills, of which he took a few, with much benefit. On the following morning, however (June 22nd), he again appeared, the pain, although much better the previous day, having now become worse. "I told him he had better go to bed, apply warm poultices, and continue the pills. As he was leaving, he stopped and asked me "to call and see him some time when passing by". I did so in about two hours, and found him sitting up in bed (he said it was more comfortable than to lie down), and still in pain. His pulse was slightly irritable, but his skin cool. His appearance was natural, and his countenance wore no anxious expression; he was able to move in bed and to talk. His wife told me he enjoyed